

# UDISC

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## importing the stats (Change per run)

code to import all of the stats into a df

```
udisc_path <- "E:\\Obsidian vault\\Personal Notes\\R\\Projects\\UDISC\\Stats\\Dad2-23-2023.csv"

udisc_stats <- read.csv(udisc_path)

udisc_stats <- mutate(udisc_stats,
                      Course_ID = paste(udisc_stats$CourseName, ":", udisc_stats$LayoutName, ":"))

summary(udisc_stats)
```

## Just solo stats (Change per run)

Getting The specific persons name, and using that to filter data down to just their rounds

```
Just_One_Name <- "Ben"
Just_One_Name
```

```
## [1] "Ben"
```

```
Just_One <- filter(udisc_stats, PlayerName == Just_One_Name)
head(Just_One)
```

```
##   PlayerName      CourseName LayoutName      Date Total
## 1    Ben Prairie Lake Disc Golf Course Short Tees 2023-02-21 1744    31
## 2    Ben Prairie Lake Disc Golf Course  Long Tees 2023-02-21 1646    32
## 3    Ben Prairie Lake Disc Golf Course Short Tees 2023-02-21 1546    32
## 4    Ben Prairie Lake Disc Golf Course Short Tees 2023-02-18 1808    12
## 5    Ben Prairie Lake Disc Golf Course Short Tees 2023-02-18 1740    30
## 6    Ben Prairie Lake Disc Golf Course Short Tees 2023-02-18 1709    31
##   X... Hole1 Hole2 Hole3 Hole4 Hole5 Hole6 Hole7 Hole8 Hole9 Hole10 Hole11
## 1    4     4     3     4     4     3     3     3     3     4     NA     NA
## 2    5     2     3     3     5     5     5     3     3     3     NA     NA
## 3    5     4     4     3     3     4     4     3     4     3     NA     NA
## 4    0     3     3     2     4     0     0     0     0     0     NA     NA
## 5    3     2     3     3     3     5     3     3     5     3     NA     NA
```

	4	4	3	3	4	3	3	3	4	4	NA	NA
	Hole12	Hole13	Hole14	Hole15	Hole16	Hole17	Hole18	Hole19	Hole20	Hole21	Hole22	
## 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
## 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
## 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
## 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
## 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
## 6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

	Hole23	Hole24	Course_ID
## 1	NA	NA	Prairie Lake Disc Golf Course : Short Tees :
## 2	NA	NA	Prairie Lake Disc Golf Course : Long Tees :
## 3	NA	NA	Prairie Lake Disc Golf Course : Short Tees :
## 4	NA	NA	Prairie Lake Disc Golf Course : Short Tees :
## 5	NA	NA	Prairie Lake Disc Golf Course : Short Tees :
## 6	NA	NA	Prairie Lake Disc Golf Course : Short Tees :

## Average strokes on the nth hole

for now, over entire career

```
First_hole_Avg <- mean(Just_One$Hole1)
First_hole_Avg
```

```
## [1] 3.666667
```

```
Second_hole_Avg <- mean(Just_One$Hole2)
Second_hole_Avg
```

```
## [1] 3.758974
```

```
Third_hole_Avg <- mean(Just_One$Hole3)
Third_hole_Avg
```

```
## [1] 3.769231
```

```
Fourth_hole_Avg <- mean(Just_One$Hole4)
Fourth_hole_Avg
```

```
## [1] 3.723077
```

```
Fifth_hole_Avg <- mean(Just_One$Hole5)
Fifth_hole_Avg
```

```
## [1] 4.05641
```

```
Sixth_hole_Avg <- mean(Just_One$Hole6)
Sixth_hole_Avg
```

```
## [1] 3.753846
```

```
Seventh_hole_Avg <- mean(Just_One$Hole7)
Seventh_hole_Avg
```

```
## [1] 3.553846
```

```
Eighth_hole_Avg <- mean(Just_One$Hole8)
Eighth_hole_Avg
```

```
## [1] 3.774359
```

```
Ninth_hole_Avg <- mean(Just_One$Hole9)
Ninth_hole_Avg
```

```
## [1] 3.876923
```

```
Front_Nine_Avgs <- c(First_hole_Avg, Second_hole_Avg, Third_hole_Avg, Fourth_hole_Avg, Fifth_hole_Avg, Sixth_hole_Avg, Seventh_hole_Avg, Eighth_hole_Avg, Ninth_hole_Avg)
Front_Nine_Avgs
```

```
## [1] 3.666667 3.758974 3.769231 3.723077 4.056410 3.753846 3.553846 3.774359
## [9] 3.876923
```

## calculate par averages

```
#create table the combines all courses into one row, and counts number of times played
Playcounts <- group_by(Just_One, Course_ID,) %>%
  summarize(
    n()
  )

Playcounts <- Playcounts %>% distinct(.keep_all = TRUE)

#Just courses played by the main person
Just_One_Course <- c(Playcounts$Course_ID)

#Total number of games played
Total_Games <- as.numeric(nrow(Just_One))

#getting the par for each course played
Pars <- filter(udisc_stats, PlayerName == "Par" )

Pars <- Pars %>% select(-Date)

Pars <- group_by(Pars, Course_ID, Hole1, Hole2, Hole3, Hole4, Hole5, Hole6, Hole7, Hole8, Hole9, Hole10)

# get rid of dupes
Pars <- Pars[!duplicated(Pars$Course_ID), ]

# THE MAGIC CODE
```

```

Pars <- filter(Pars, Course_ID %in% Playcounts$Course_ID)

#ordering pars and Playcounts by Course_ID to get them in the same order

Pars <- Pars[order(Pars$Course_ID), ]

Playcounts <- Playcounts[order(Playcounts$Course_ID), ]

#get weighted average of par for each hole: sum of (par * ((this holes playcount)/(total hole one plays
First_hole_Avg_Par <- sum(Pars$Hole1*(Playcounts$n() / sum(Playcounts$n())))

Second_hole_Avg_Par <- sum(Pars$Hole2*(Playcounts$n() / sum(Playcounts$n())))

Third_hole_Avg_Par <- sum(Pars$Hole3*(Playcounts$n() / sum(Playcounts$n())))

Fourth_hole_Avg_Par <- sum(Pars$Hole4*(Playcounts$n() / sum(Playcounts$n())))

Fifth_hole_Avg_Par <- sum(Pars$Hole5*(Playcounts$n() / sum(Playcounts$n())))

Sixth_hole_Avg_Par <- sum(Pars$Hole6*(Playcounts$n() / sum(Playcounts$n())))

Seventh_hole_Avg_Par <- sum(Pars$Hole7*(Playcounts$n() / sum(Playcounts$n())))

Eighth_hole_Avg_Par <- sum(Pars$Hole8*(Playcounts$n() / sum(Playcounts$n())))

Ninth_hole_Avg_Par <- sum(Pars$Hole9*(Playcounts$n() / sum(Playcounts$n())))

#assign values to vector
Front_Nine_Avg_Pars <- c(First_hole_Avg_Par, Second_hole_Avg_Par, Third_hole_Avg_Par, Fourth_hole_Avg_Par, Fifth_hole_Avg_Par, Sixth_hole_Avg_Par, Seventh_hole_Avg_Par, Eighth_hole_Avg_Par, Ninth_hole_Avg_Par)

## [1] 3.015385 3.076923 3.138462 3.097436 3.117949 3.158974 3.102564 3.189744
## [9] 3.164103

```

## Calculate avg score on the nth hole

```

Rel_Score <- (Front_Nine_Avg - Front_Nine_Avg_Pars)

```

## Plotting Average strokes on each hole (holes 1-9)

```

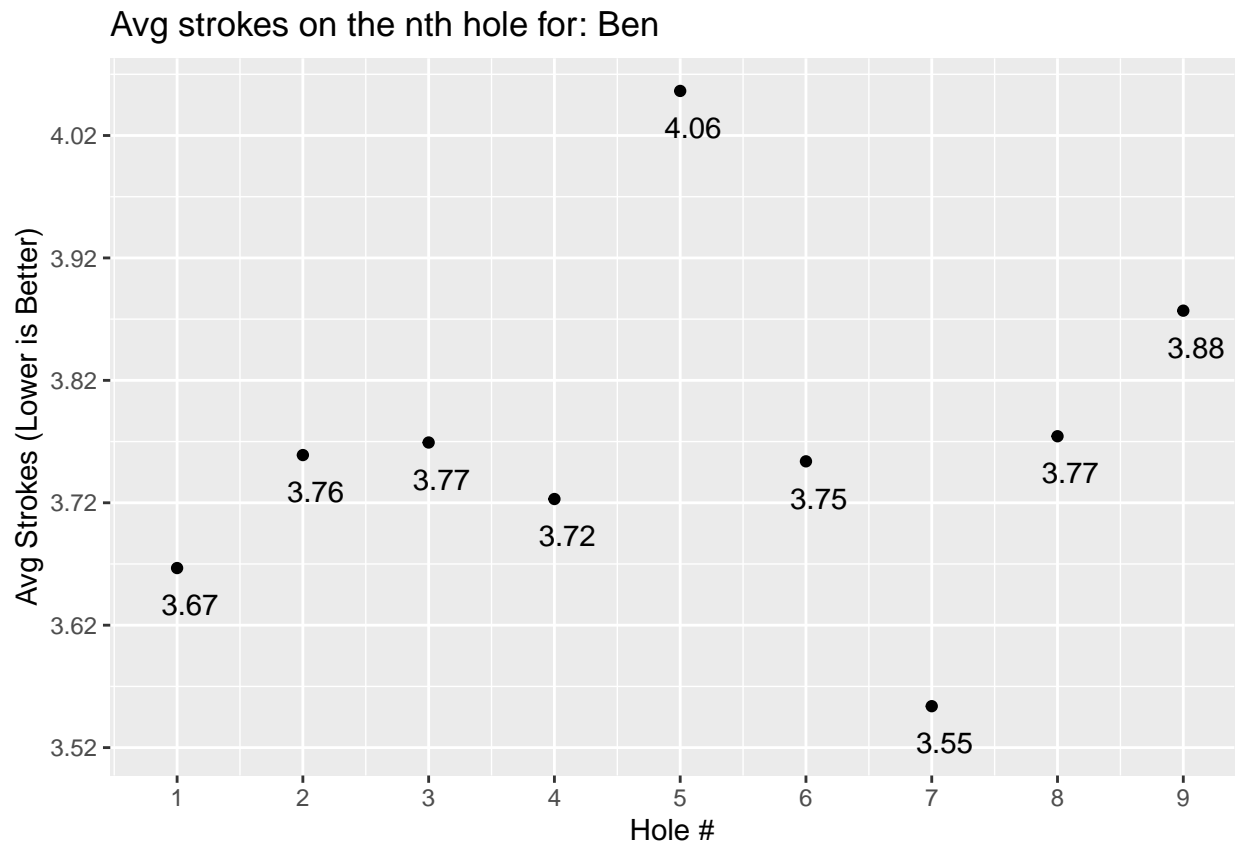
#Put Rel_Score into a data frame
df <- data.frame(Rel_Score, 1:9)

#get the ylimit to have extra space on the bottom, for labels

Ylim_One <- min(Front_Nine_Avg-.03)
Ylim_Two <- max(Front_Nine_Avg)

```

```
ggplot(data = df, aes(x = 1:9, y = Front_Nine_Avgs, label = Rel_Score), xlims = c(1,9), ylims = c(Ylim_One, Ylim_Two)) +
  geom_point() +
  labs(title = paste("Avg strokes on the nth hole for:", Just_One_Name ), x = "Hole #", y = "Avg Strokes (Lower is Better)") +
  scale_x_continuous(breaks = seq(1,9 , by = 1)) +
  scale_y_continuous(breaks = round(seq(Ylim_One, Ylim_Two, .1), digits=2)) +
  geom_text(label = round(Front_Nine_Avgs, digits = 2), hjust = 0, nudge_x = -0.125, nudge_y = -0.03)
```



## Plotting Avg score on the nth hole

```
Ylim_Rel_One <- min(Rel_Score-.03)
Ylim_Rel_Two <- max(Rel_Score)

ggplot(data = df, aes(x = 1:9, y = Rel_Score, label = Rel_Score), xlims = c(1,9), ylims = c(Ylim_Rel_One, Ylim_Rel_Two)) +
  geom_point() +
  labs(title = paste("Avg score on the nth hole for:", Just_One_Name ), x = "Hole #", y = "Avg Score (Lower is Better)") +
  scale_x_continuous(breaks = seq(1,9 , by = 1)) +
  scale_y_continuous(breaks = round(seq(Ylim_Rel_One, Ylim_Rel_Two, .1), digits=2)) +
  geom_text(label = round(Rel_Score, digits = 2), hjust = 0, nudge_x = -0.125, nudge_y = -0.03)
```

